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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/604,144	06/27/2003	Robert Wayne Gravely	1030.004	1143
36790	7590	09/29/2006	EXAMINER	
TILLMAN WRIGHT, PLLC PO BOX 471581 CHARLOTTE, NC 28247			RACHUBA, MAURINA T	
			ART UNIT	PAPER NUMBER

3723

DATE MAILED: 09/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/604,144

Applicant(s)

GRAVELY ET AL.

Examiner

M Rachuba

Art Unit

3723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 July 2006.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26-28 and 30-34 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 26-28, 30 and 34 is/are allowed.
6) ☒ Claim(s) 31-33 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 24 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Allowable Subject Matter

1. The indicated allowability of claims 31-33 is withdrawn. Please refer to the rejection below.

Election/Restrictions

2. Applicant's election without traverse of group III, claims 26-34 in the reply filed on 30 November 2005 is acknowledged.

Terminal Disclaimer

3. The terminal disclaimer filed on 28 July 2006 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of 6,050,163 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gakhar et al, 5,555,788 (previously cited in the Notice of References Cited mailed 17 February 2005. Please refer to figures 8, 14, 36, 37 and 42, all showing a circular saw blade, comprising a planar saw body and a cutting edge encircling said planar saw body and defining a rotational direction for cutting, the planar saw body having a planar annular section having oppositely facing parallel surfaces and having a substantially uniform axial thickness between said oppositely facing parallel surfaces, the planar

annular section defining a plurality of cavities therein, each one of the cavities being sufficient to (the cavities are capable of) receive liquid therein for transport, wherein the cumulative opening area of the plurality of cavities equals a small percent of a cutting triangle of the circular saw blade; wherein the plurality of cavities consists of three cavities, and wherein said plurality of cavities comprise only three cavities angularly spaced at 120 degrees relative to one another about a center of said saw body. It is not explicitly disclosed that the cumulative opening area of the plurality of cavities equals approximately six percent, or approximately two percent, of an area of a cutting triangle of the blade, the cutting triangle defined by applicant as an approximate right triangle having an arc of the cutting edge of the blade as a hypotenuse. The arc extends between a first vertex defined by a point where a tooth enters the cant, and a second vertex defined by a point where another tooth simultaneously exits the cant. A first leg lies along a bedplate of the saw arrangement and includes the first vertex, and a second leg lies perpendicular to the bedplate and includes the second vertex. '788, discloses a cavity lying in a cutting triangle as defined by applicant, the cavity comprising a small area of the triangle. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the cavities in the size range of approximately six percent, or approximately 2 percent, of the cutting triangle, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Here, the size of the cavities disclosed by '788 are proportionally small relative to the size of the cutting circle, and one of ordinary skill would have

considered it obvious to have made the area of the cavities of the range claimed, to minimize any flexure of the saw blade (the larger the opening, inherently the more flexible the saw will be, having less material to stiffen the blade. See column 5, lines 26-45.

Allowable Subject Matter

6. Claims 26-28 and 34 are allowed.

Response to Arguments

7. Applicant's arguments with respect to claims 31-33 have been considered but are moot in view of the new ground(s) of rejection. To provide applicant fair opportunity to respond to the new grounds of rejection, this action is made non-final.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M Rachuba whose telephone number is 571-272-4493. The examiner can normally be reached on Monday-Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail can be reached on 571-272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

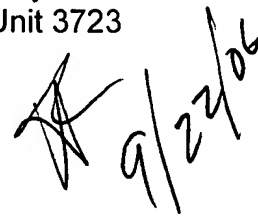
Application/Control Number: 10/604,144

Page 5

Art Unit: 3723

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

M Rachuba
Primary Examiner
Art Unit 3723

Handwritten signature and date 9/22/06.